

AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) Apparatus for treating a raw feed containing ions,
comprising:

an electromembrane device having means for conveying the raw feed thereto and
treated feed therefrom, an anode, a cathode, an electrolyte solution and means for
conveying at least one stream of the electrolyte solution between the cathode and anode
which are arranged to apply an electric current to drive electrodeionisation in the
electromembrane device for removal of the ions from the raw feed into a concentrate,
wherein the raw feed is not in direct contact with the anode or the cathode; and

~~means for removing ionisable impurities from an electrolyte solution in an~~
~~electromembrane device, comprising means for conveying at least one stream of~~
~~electrolyte solution between a cathode and an anode of the device, and means for~~
~~transferring selected ions from the electrolyte solution into a separate stream~~ the
concentrate upon application of ~~[[a]]~~ the current.

2. (Currently Amended) ~~Apparatus~~ The apparatus according to claim 1, wherein the
means for transferring selected ions comprises an anion exchange membrane adjacent the
cathode and/or a cation exchange membrane adjacent the anode.

3. (Currently Amended) ~~Apparatus~~ The apparatus according to claim 2, wherein

4. (Currently Amended) ~~Apparatus~~ The apparatus according to claim 2, wherein each said membrane is in electrical contact with an electrode by means of a liquid permeable ion conducting material.

5. (Currently Amended) ~~Apparatus~~ The apparatus according to claim 4, wherein the liquid permeable ion conducting material comprises one or more selected from an ion exchange resin, ion exchange fibres and an ion exchange foam.

6. (Currently Amended) ~~Apparatus~~ The apparatus according to claim 5, there being a liquid permeable anion conducting material in contact with the cathode and a liquid permeable cation conducting material in contact with the anode.

7. (Currently Amended) ~~Apparatus~~ The apparatus according to ~~any preceding~~ claim 1, wherein the ~~ion transfer~~ means for transferring selected ions from the electrolyte solution to the ~~separate stream~~ concentrate is adapted to transfer anions only.

8. (Currently Amended) ~~Apparatus~~ The apparatus according to ~~any of claims 1 to 6~~ claim 1, wherein the ~~ion transfer~~ means for transferring selected ions from the electrolyte solution to the ~~separate stream~~ concentrate is adapted to transfer cations only.

9. (Currently Amended) ~~Apparatus~~ The apparatus according to ~~any of claims 1 to 6~~

claim 1, wherein the ~~ion-transfer~~ means for transferring selected ions from the electrolyte solution to the ~~separate stream~~ concentrate is adapted to transfer both cations and anions.

10. (Cancelled)

11. (Cancelled)

12. (Currently Amended) ~~Apparatus~~ The apparatus according to ~~any preceding~~ claim 1, wherein the electrolyte solution comprises distilled water.

13. (Currently Amended) ~~Apparatus~~ The apparatus according to ~~any preceding~~ claim 1, wherein the means for conveying at least one stream of electrolyte solution comprises means for conveying a first stream between the cathode and the anode in contact with the cathode, and means for conveying a second stream between the cathode and the anode in contact with the anode.

14. (Currently Amended) ~~Apparatus~~ The apparatus according to ~~any preceding~~ claim 1, wherein the means for conveying at least one stream of electrolyte solution comprises means for recirculating the electrolyte solution between the cathode and the anode.

15. (Cancelled)

16. (Cancelled)

17. (Cancelled)

18. (Currently Amended) ~~At~~ The electromembrane device according to ~~any of claims~~
~~15 to 17~~ claim 1, being part of a waste fluoride treatment system.

19. (Withdrawn) A process for removing ionisable impurities from an electrolyte solution in an electromembrane device, comprising providing means adapted to transfer selected ions from the electrolyte solution to a separate stream on application of a current to the device, conveying at least one stream of electrolyte solution between an anode and a cathode of the device, and applying a said current.

20. (Withdrawn) A process according to claim 19, including the step of providing means adapted to transfer anions only.

21. (Withdrawn) A process according to claim 19, including the step of providing means adapted to transfer cations only.

22. (Withdrawn) A process according to claim 19, including the step of providing means adapted to transfer both anions and cations.

23. (Withdrawn) A process according to any of claims 19 to 22, including the step of transferring the selected ions to a concentrate stream of the electromembrane device.

24. (Withdrawn) A process according to any of claims 19 to 23, including the step of conveying between the anode and the cathode at least one stream of electrolyte

25. (Withdrawn) A process according to any of claims 19 to 24, wherein the electrolyte solution is recirculated between the cathode and the anode.

26. (Withdrawn) An electromembrane process, including the step of operating a process according to any of claims 19 to 25.

27. (Withdrawn) An electromembrane process according to claim 26, being an electrodeionisation and/or electrodialysis process.

28. (Withdrawn) An electromembrane process according to claim 26 or claim 27, being part of a liquid waste treatment process.

29. (Withdrawn) An electromembrane process according to any of claims 26 to 28, being part of a waste fluoride treatment process.